

W5YI

Nation's Oldest Ham Radio Newsletter REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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Dayton HamVention 1994 - is now History!

Some 35,000 amateurs attended the 1994 edition of the Dayton HamVention. Heavy rains dampened the spirits in the Flea Market - but seemed to help inside sales by the commercial exhibitors. There were the usual excellent collection of forums and speakers.

The Amateur Radio Industry Group held two meetings on Thursday, April 28th where it was agreed that the organization would take a more aggressive leadership role in amateur radio rule-making. Ray Kowalski, an ex-FCC official turned Washington, DC communications law attorney addressed both meetings and made recommendations to those assembled.

One forum leader who couldn't be there was Carole Perry, WB2MGP, a previous HamVention Ham-of-the-Year. She had been scheduled to present a Saturday program entitled *Youth in Amateur Radio*. Carole had a serious spinal operation to remove a bone chip pressing against a nerve just two days before HamVention and had to cancel. The forum was well handled by Noel McKeown.

An arrangement had been made to call Carole at the hospital during the forum. But she was discharged at 10:00 am. on Saturday - just 45 minutes before the forum was to begin and her hospital room telephone was disconnected.

But she welcomed everyone to the forum and made opening remarks anyway ...via a cellular telephone lash-up on the way home from the

hospital in a car surrounded by flowers! The cellular call originating from the streets of New York was interfaced into the forum public address system! Talk about dedication! She is feeling much better now and the pain has subsided somewhat, but she tires easily. It will be six weeks before she can return to her New York City teaching position.

FCC PRESENTATION ON RULE MAKING

The well-attended FCC Forum presented by (Washington DC) Personal Radio Branch Chief John B. Johnston, W3BE and his assistant William T. Cross, AA3DI was held on Sunday morning. They gave a very interesting one hour talk on FCC rules which we taped.

They began by taking a poll of those in the audience who had been active in amateur service rulemaking proceedings. Johnston asked for a show of hands of those who have filed a Petition for Rulemaking or had filed formal comments on a Petition or Notice of Proposed Rulemaking. Many attendees raised their hands.

HOW RULES ARE CHANGED

Johnston then went into a short explanation of how the rulemaking process works. He said that many rule making proceedings begin with a petition. And some 25 to 50 are filed annually, mostly by individuals - but some by organizations.

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Many are frivolous, repetitive, based on mis-information, or otherwise unacceptable - and are immediately denied and dismissed. The petitions that have merit are given a rulemaking (RM) number and a 30 day preliminary comment period assigned.

If the comments (and the costs associated with the rule change) warrant a rule change, a *Notice of Proposed Rulemaking* is issued and presented to the Commissioners for their consideration. If they adopt it, it is given a Docket number. This event is announced by a news release. The text follows shortly after so that you can see the exact proposal.

The amateur community is then on notice that the FCC is thinking about changing the rules. "The very first thing you should do is obtain a copy of the proposal and read it carefully. Determine the issues that are important to you."

"Two dates are specified in the Notice. The first one is for your comments. This is where you put into the official record a statement of your support or opposition to the proposal. You can also recommend improvements. For the amateur service, a long comment period is usually provided ...at least 60 days. Some have been for six months. All comments must be filed with the Secretary of the FCC."

After the comment dates have closed, the record is carefully reviewed and a *Report and Order* is drafted. If the Commissioners adopt it, a date is given for the new rules to become effective.

THE PERSONAL RADIO BRANCH

Johnny Johnston said that the Personal Radio Branch consists of himself plus Mr. Cross who "...has authored several of your major rule makings. Recently, however, he has been busy with the commercial radio operator license examination system and the interactive video data service." Mr. DePont is the senior attorney. He has been with the FCC for over 40 years. He has worked in the Branch for 16 years and is the author of your major rule makings. He is probably best known for drafting your antenna preemption, PRB-1." Mr. Fitz-Gibbon is the attorney who deals with cases involving exam cheating. Ms. Alford and Staples handle the letters, phone calls ...and questions.

The Personal Radio Branch works on Parts 13 (Commercial Radio), 95 (General Mobile Radio Service, the R/C [radio control] service, the CB service and the Interactive Video Data Service) and 97 -- the rules for the amateur service, amateur-satellite and RACES (Radio Amateur Civil Emergency Service.)

APPLICATIONS AND RENEWALS

At this point, Johnny Johnston explained the various license application forms. The buff Form 610 is

used for renewing licenses, upgrading and change of address or name. "Only the new November 1993 may be used." The white Form 610-A is for alien reciprocal permits, and the white Form 610-B is for change of club trustee.

Johnston said that "There has been a rash of applications for upgrading arriving at Gettysburg from the VEC's with Item 4E (call sign change) checked. After new call signs are assigned, however, the applicant's claim they did not put the [X] in Item 4E. 'They claim the VEs did it!' So, now you must not only check Item 4E, you must also initial it."

"License renewal is something new for many of you. In December 1983, the FCC began issuing licenses having a ten year term with the same license class or mailing address. When you come in for any type of modification, you are given a new ten year term."

"...reach into your pocket, get out that license and check the expiration date. If it expires between today and August 1st, get your Form 610 in the mail. If you can get it in the mail before it expires, you can continue to operate until your application is acted upon. If it expired yesterday or before, however, you are no longer a licensed amateur operator. There is a renewal grace period of two years. ...Gettysburg is working on a renewal system that would use a mail-back renewal form."

HANDICAPPED APPLICATION HANDLING

"On the back side of the form is the place where a physician certifies that the applicant cannot pass the 13 or 20 words per minute code exam because of a severe handicap. The lower half of the page explains to the doctor just what this is all about."

"First it explains that the doctor is being asked by a person who has already passed a 5 words per minute telegraphy examination to certify that, because of a severe handicap, he/she is unable to pass a higher speed telegraphy exam. If the certification is signed, the VEs must exempt the person from the exam."

"The doctor must decide if the person's handicap is so severe that the applicant could never pass the examination even with accommodative procedures. This [exemption] procedure is not intended to excuse a person who simply wants to avoid expending the effort necessary to acquire greater skill in telegraphy."

FCC RULE MAKING

William Cross went over all of the Dockets adopted during the past year. "All in all," Bill said, "this has been a highly productive year for the amateur service. Your Novice exams were placed under the VEC System. You got the protection that you asked for against state and local police seizing your transceivers. Your

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'business' rule was revised. Your Novices got the entire 1.25 meter band, you got your weak-signal sub-band, and the impediment to your VHF high speed digital systems was removed."

"You made all of this possible. As we said before, the FCC has no master plan for the amateur service. It is primarily through your petitions and comments that we develop our understanding of what it is that the amateur community needs and wants." At this point, Cross spoke briefly about the various rule makings.

"The League had requested that the FCC preempt certain state statutes and local ordinances affecting your transceivers. These so-called 'scanner laws' prohibited the possession of such transceivers if they are capable of reception on frequencies other than your amateur service frequencies."

"Because this was a request for a declaratory ruling, rather than for a change in the rules, the FCC released a *Notice of Inquiry* soliciting comment. We received 115 comments. Shortly after the Motion was filed, New Jersey repealed its statute and Kentucky amended its statute."

"The FCC held that state and local laws that preclude the possession of amateur transceivers by licensed amateur operators merely on the basis that they can receive other frequencies are inconsistent with the federal objectives of facilitating and promoting the amateur service and, more fundamentally, with the federal interest in amateurs being able to communicate using the amateur service frequencies. The FCC declared, therefore, that such state and local laws are preempted by federal law."

BUSINESS ORIENTED COMMUNICATIONS

"You made a convincing argument that the capabilities of modern mobile communications services had all but eliminated any incentive to use your frequencies as an alternative to those of other services. You also showed that you are prepared to accept greater responsibility for self-regulation and cooperation in the use of your frequencies."

"One request that the FCC decided against was that we provide a list of examples of your permitted and prohibited communications. For us to even try to do that would cause us to intrude upon your day-to-day activities to a far greater degree than we desire. There would have to be thousands of examples. The FCC declined, therefore, to devote any of our resources to the development and maintenance of any such list. It is left up to you to make those determinations."

"What the FCC did do, however, was to place into the rules the standards that you said should be used when you are trying to decide whether or not to use

your frequencies for a particular communication. Here they are. Any amateur-to-amateur communications is OK unless it is:

- Expressly prohibited in the rules;
- Transmitted for compensation;
- Done for the pecuniary benefit of the station control operator, or;
- Done for the pecuniary benefit of the station control operator's employer.

Everyone in the Branch keeps a copy of these standards nearby their telephone. We read them to you, when you insist. We do not, however, pass judgement on any particular communication."

CHANGE IN THE 1.25 METER BAND

"This rule making was based upon petitions filed by the League and one individual. Eighty comments were filed [and] ...and seemed to agree that experimental communications and repeaters are incompatible because of long periods of channel occupancy by a repeater. You had differing opinions, however, as to whether a small subband is needed for experimentation where repeaters would not be allowed."

"Although for the amateur service we rely generally upon voluntary coordination, it was apparent from the comments that you believed that the only way you could obtain protection for experimentation was through regulation. One-hundred-fifty kHz, therefore, was set aside at 222 MHz where repeaters are prohibited."

"You also showed that you want your Novices to use the entire 1.25 meter band, although you do not want them to have repeaters. You were concerned that the Novice examination has not required enough knowledge about repeaters needed to insure a high standard of operation. Some of you pointed out that, after all, the only thing a Novice has to do is answer correctly 19 questions, some of which cover proper repeater operation, and get a Technician Class license."

NOVICE TO VEC SYSTEM

"This proceeding was initiated by the FCC after observing for several years that your VEC System was far superior to the old ad hoc Novice system. There were 60 comments filed."

"You wanted to end the confusion that existed because of the two very different systems. The number of errors on Novice applications was over ten times greater than those in your VEC System."

At this point a bar graph was shown on a screen indicating the number of first time licensed Novices and Technicians. The number of new Technician Class amateurs averaged "...from 2,000 in November

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to almost 6,000 in September and June." New Novices "...range from about 100 in December to over 1,000 in January and June 1993. Interest in Novice seems to have dropped off drastically right after the Novice exams were moved to the VEC System."

Another chart depicted the number of amateurs upgrading to levels which require Morse code proficiency. "Anyone who is still worried about the impact on telegraphy can rest easy. You have more hams moving up the ladder to those license classes where telegraphy skill is necessary than you did before the codeless Tech."

"Five to ten years ago, you had ten to fifteen thousand persons moving to General, Advanced and Amateur Extra. In the last three years, that has gone up to 17 and 18 thousand."

"Your VEC System has been underway since 1984. It's in its eleventh year! Last summer, you administered your one-millionth examination. In 1993, you administered 194,000 elements to 113,000 examinees at 11,000 sessions!

AUTOMATIC MESSAGE FORWARDING

"You wanted accommodations for stations in these systems in order to eliminate the review procedures that are a natural part of your old CW and phone networks, but that unnecessarily slowed down your packet system."

"The solution was that only the originating station and the first forwarding station, if it could not authenticate the identity of the originator, would be accountable for violative communications."

"You did not, however, want these accommodations to apply to your repeaters and auxiliary stations. The new rules become effective June 1st."

"Another accommodation was made by broadening that exception to the prohibition on your VHF and UHF stations transmitting third party traffic while under automatic control. It will include other message forwarding protocols, not just the ARRL AX.25."

"The League has expressed concern that some of you may think that this item pre-judged inadvertently the matter of automatic control of digital operation on HF. That is not the case. You will have your opportunity to comment on that matter in a future proceeding."

STATUS OF CURRENT RULEMAKING

John Johnston noted "...that it has been a busy year. Moreover, it doesn't look as if there will be any let up in the coming year. We have your comments in a number of Dockets for which there has been a *Notice of Proposed Rule Making*.

- There is the matter of your vanity call signs.

- There is the temporary operating authority to new hams and visiting foreign amateurs.
- There are the matters of sharing frequencies to give you access to the 219-220 MHz band and for wind profiler radars on the 70 centimeter band.
- There is also the matter of accommodations for your digital communications in the HF bands.

On Vanity Call Signs: "The vanity call sign item was initiated by the FCC because we need to know what kind of system you want. None of you filed a petition. The comment period has closed, but the reply comment period extends to May 21."

"The *Notice of Proposed Rule Making* was prompted by new legislation that specifies a fee of seven dollars per year for your use of a vanity amateur station call sign. Please note that the fee implementation issues are being resolved in MD [Office of Managing Director] Docket No. 94-19. That is a separate and more comprehensive, rule making item. The comment dates for that have closed."

On Temporary Operating Authority: "For the record, the temporary operating authority to new hams was initiated by RM-8288. In actuality, it was in response to a campaign that was running on your bulletin boards and newsletters complaining about the four-to-eight weeks it can take for Gettysburg to process a license application."

"On top of that, it can take another four weeks or longer for the Form 610 [application] to arrive at Gettysburg from the VECs. So, after passing the exams, the new ham faces a two or three month wait for the license."

"One of the most resource-consuming tasks in license processing is the keystroking of the information from your Form 610 in preparation for updating the licensee data base. When your application gets caught in a backlog, it has to wait its turn."

"Probably the second-most resource-consuming task is to clear up any discrepancies on the Form 610 before sending it to keystroking. Your VEs and VECs all have horror stories about Form 610 errors that you have had to resolve."

"We have been talking to the VECs for sometime about the advantages, and challenges, of electronic filing of applications. Initially, it could speed up receipt of the license by at least a couple of weeks. Slowly but surely, the obstacles to electronic filing are being cleared away:

- The law that used to require an original handwritten signature on the application has been changed.
- Gettysburg has more equipment and data processing expertise.

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- Procedures have been developed for electronic filing in other radio services, and;
- Applications are being filed in those other services.

"You are fortunate that amongst your VECs, you have data base management and computer experts. So, electronic filing will become a reality."

"But all of this wonderful future capability doesn't help those who took their first exam over at the Meadowdale High School [Dayton Hamvention testing site] yesterday. They want to get on the air with those nifty HTs they bought out there in the exhibit area. About 50 such calls come in every day. Answering them not only detracts from processing the licenses, but also from working on electronic filing."

"So this proceeding is intended to bring some temporary relief to the situation. The comment period has closed on this."

On Part 97 Rule Changes: "In spite of all of this rule making activity, we believe that Part 97 is basically meeting your needs. You have, in Subpart A and B, a solid baseline of rules for amateur operation in general. When there is an amendment in either of these two subparts, it usually affects all types of amateur operation. The relaxation in the permissible communications that Mr. Cross told you about was in Subpart B, for example."

"As new amateur communications systems emerge, as we should all expect that they will, they too will challenge the rules. Many of today's rules, after all, are based on concepts associated with yesterday's interests, systems, and technology. Even so, many times the baseline rules are so sound that they apply quite well to modern situations."

"One approach that we use is to avoid 'how-to' rules. These are rules that specify just how you are to do something. They seem to always make for problems sooner or later. When you have a 'how-to' rule, you probably are trying to solve a problem with an existing system. Sooner or later, that system is going to become passe. But a rule can take on a life of its own and get in the way of new systems."

"So when you want a rule to serve some purpose, propose a rule that states what the purpose is. Sometimes a new system just requires an accommodation. Subpart C, *Special Operations* is there just for those situations. This is where you have accommodations for your auxiliary stations, beacons, repeaters, space stations, telecommand, and so on. Your new accommodations for your weak signal operation and message forwarding systems went into Subpart C, for example."

"Subpart D is your *Technical Standards*. This has your frequency privileges. Your new Novice privileges went into this subpart."

"Subpart E, *Providing Emergency Communications*, seems to be serving you adequately."

"Subpart F, is where the regulations for your *Qualifying Examination System* are located. This was the subpart that was changed to move the Novice exams to the VEC System."

"Sometimes we hear complaints that Part 97 changes too often. We hear that from your Question Pool Committee. Maybe it does."

"But we argue that the frequent changing of the rules is proof that you are carrying out your obligations with determination and vigor. You are experimenting with the latest technology. Your numbers are growing. You are testing out novel ideas."

"We want to keep our perceptions of your radio service current. We do not want to waste time in defending requirements that no longer serve a useful purpose. The permissible communications rule is the perfect example."

"One of the most important considerations in the rule making process is the desire of the amateur community. That is one of the reasons we are here today."

"We know, all too well, that there are several points of view within your ranks. It should be no surprise, therefore, that your collective desires often change abruptly."

"There are many factors that go into the particular point of view that each one of you brings to the amateur community. One of those factors most certainly must be the experience that you have accumulated as an amateur operator."

WHAT WAS YOUR FIRST LICENSE CLASS

John Johnston took an interesting poll of those in attendance at the FCC Forum. He wanted to know by a show of hands when amateurs were first licensed.

"Raise your hand, please, if you came into the amateur service as a Class B or C licensee under the structure that existed prior to 1950? You had to pass a 13 words-per-minute exam first thing. One minute solid copy out of five. Training was very hard to come by." About 20% of the people in attendance raised their hands.

"Now, how many came in as a Novice? Count me in this group. We got in at 5 words-per-minute. One minute solid copy. A few 78 rpm code training records showed up in the 50s. Later on, there were tapes, training manuals, and computer courses." All of the remaining amateurs raised their hands!

"Now, how many came in as a codeless Technician? You had to pass a more extensive written exam than the others did. But you had far better training opportunities than those who preceded you."

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Incredibly, there were no codeless Techs at the FCC meeting! [This was very confusing to us! Especially since more than 110,000 people have entered ham radio via the codeless Technician route since February 1991. This is more newcomers than in any other 3 year period in history ...and nearly 20% of the current ham population. Yet none attended the speech given by the FCCs Personal Radio Branch! We are not sure just what this survey proves, except that perhaps No-Code Techs may be more interested in surveying the goodies in flea market and exhibit area than in ham radio rules.]

"Whether you have been a ham for fifty years, or five years, ...or five hours, your insight into what the amateur service needs now, next year, or whenever the next big shift in sentiment occurs, can be a valuable input into the rule making process."

PENDING PETITIONS FOR RULEMAKING

"Let's take a look at what your current petitions are asking for,"

"The League is directing a rigorous feasibility project to find the answer to that issue of automatic station control on the HF bands that Mr. Cross mentioned. Its project consists of some 50 automatically controlled stations transmitting on the 20 meter band under special temporary authority. In RM-8218, it requested that certain regulatory safeguards for such operation be placed into Part 97."

"Because of interference problems that can arise, the rules prohibit automatically controlled stations from operating on the shared HF bands. These petitions indicate that you may want to bring to the HF bands the benefits of the digital technology that you have developed for the shorter wave length bands."

"There is a draft *Notice of Proposed Rule Making* in the hopper. It will be your opportunity to put your comments on the record."

"The next one wants still more frequencies for Novices. It was from an individual.

"Three petitions that asked for changes in operator classes and examination requirements were denied last Thursday. (April 28th)"

These included RM-8405 [Dr. Larry Jack, Advanced Class, KL7GLK, Annapolis, MD] who requested that the 20 words-per-minute telegraphy requirement be eliminated from the Amateur Extra Class operator license.

RM-8391 [Rolf Jespersen, N3LA, Spring City, PA] wants only three classes of operator licenses - only two of which would require telegraphy proficiency. The minimum speed would be 13 wpm for the Amateur Extra Class and 5 wpm for the General Class.

In RM-8406, two Extra Class amateurs [Dale

Bagley, NZ0S and Vernon Swaine, AA0ID - both of Macon, MO] requested a Novice Class operator license that has no telegraphy requirement.

"The present structure, as most of you are aware, is the result of some six major rule makings over the past 45 years... as well as countless relatively minor rule makings. These proceedings have produced several thousands of comments. The current operator classes and examination requirements were developed in accordance with the expressed desires of the amateur service community. You have indicated on each occasion that you strongly desire to preserve communications by telegraphy. So, in view of the ambitious FCC agenda for cable regulation, PCS, the information superhighway and so forth, it would take a very convincing argument to show the Commissioners that yet another rulemaking for amateur operator license classes is needed."

"RM-8418 (lifetime license) is from the League. It wants, henceforth, to encourage former hams who have dropped out of ham radio to return by allowing them to become licensed without re-passing your exams. It claims that there is no difference between two hams that have been inactive for many years, but one kept renewing his license and the other one didn't. No one can argue with that."

"RM-8301 was filed by the Western Carolina VEC. This was in response to references that we have observed, in correspondence with the VECs, to the presence of an ad hoc supervisory position on each of your VE teams. The ARRL-VEC, for example, call its team manager the 'VE Team Liaison.' That VE is the team's representative to the ARRL-VEC. The petition, in effect, asks that the role of these team managers be recognized in the rules."

"RM-8462 is also from the League. It wants to raise the eligibility for a club station license to those with at least four members."

"The League has also asked for a policy statement or declaratory ruling interpreting PRB-1."

"Thank you. And have an enjoyable Hamvention!

- The FCC has affirmed a Radio Bureau denial of a request for a waiver of the rules governing transmitter power. Dale E. Gagnon, KW1I of Bow, NH requested permission for his amateur station to transmit at power levels greater than the 1,500 watts authorized.

Gagnon said he needed the higher power in order to engage in long-distance communications and to avoid the cost of bringing his vintage transmitters into compliance. The Commission said that Gagnon had not submitted any compelling arguments why his station should be given preferential treatment and to do so would be unfair to other amateur station licensees who much comply with the power requirement.

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AMSAT AT HAMVENTION TERMED "BEST EVER"

AMSAT-North America's participation at the 1994 Dayton Hamvention was nothing short of a record breaker from a number of standpoints.

"While all the numbers aren't in yet, we now believe this will be our best year ever for AMSAT at Dayton," said Bill Tynan, W3XO, AMSAT-NA President. He went on to express his sincere thanks for the very long hours, lost sleep and hard work put forth by the many Dayton AMSAT booth volunteers, forum speakers and contributors. In addition, Bill expressed his particular pleasure that the success at this year's Hamvention also coincided with AMSAT's 25th anniversary celebration.

Without question, the highlight of this year's Hamvention activity was a forum honoring the 10th anniversary of SAREX activity aboard the NASA Space Shuttle. Roy Neal, K6DUE, moderated the forum and was joined on the podium by NASA Shuttle Astronauts Tony England, W0ORE, and Steve Nagel, N5RAW, along with several other members of the SAREX working group. Tony England flew on the second mission with ham radio in space in 1985. Steve Nagel, a veteran of several shuttle flights, most recently commanded shuttle flight STS-55 in 1993.

Also joining the group by live telephone patch were Astronauts Jay Apt, N5QWL, at the Johnson Space Flight Center in Houston and Astronaut Ron Parise, WA4SIR, at the Goddard Space Flight Center in Greenbelt, Maryland. In addition, a surprisingly clear telephone patch was successfully completed to Astronaut Ken Cameron, KB5AWP, in Star City, Russia. Ken is now training there for an upcoming joint NASA/Soyuz mission to the Russian Space Station MIR. All the astronauts shared their on-orbit experiences with ham radio and answered several questions from the gathering of Hamvention attendees.

A number of students who have contacted the Shuttle via Amateur Radio in the past were also present at the forum and gave their own first hand impressions of their activities. Local TV coverage from all three Dayton commercial television stations highlighted the NASA astronauts speaking to the standing-room-only crowd of nearly 500 present at the event.

Dick Jansson, WD4FAB, AMSAT-NA's VP for Engineering, was also on the program and brought Hamvention attendees up to speed on the latest developments with Phase 3-D. In addition, Ron Broadbent, G3AAJ, the Honorable Secretary of AMSAT-UK, gave his organization's perspective on the Phase 3-D project. Ron also announced to the group that a \$100,000 contribution from AMSAT-UK was recently made to the Phase 3-D project specifically for the purchase of flight batteries for the new spacecraft.

FEBRUARY VE PROGRAM STATISTICS

<u>February</u> <u>No. VEC's</u>	<u>1992</u> <u>18</u>	<u>1993</u> <u>18</u>	<u>1994</u> <u>18</u>
<u>Testing Sessions</u>	<u>814</u>	<u>723</u>	<u>730</u>
<u>VEC</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
ARRL	48.5%	50.6%	48.9%
W5YI	34.3	36.0	37.5%
CAVEC	4.2	3.2	3.3
WCARS	3.1	2.2	2.3
GtLakes	3.9	2.4	1.4
SunnyV	0.9	0.7	1.2
Others (12)	5.1	4.9	5.4
<u>Year-to-Date Sessions</u>	<u>1523</u>	<u>1404</u>	<u>1578</u>
<u>Elements Administ.</u>	<u>17841</u>	<u>14366</u>	<u>12651</u>
<u>VEC</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
ARRL	52.9%	51.4%	49.4%
W5YI	27.2	30.3	30.4
CAVEC	4.3	3.1	4.0
WCARS	3.5	3.1	3.3
SunnyV	2.1	2.1	3.0
GtLakes	3.0	2.3	2.4
Others (12)	7.0	5.7	7.5
<u>Year-to-Date Elements</u>	<u>31491</u>	<u>25201</u>	<u>25560</u>
<u>Applicants Tested</u>	<u>10481</u>	<u>8427</u>	<u>7406</u>
<u>VEC</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
ARRL	52.8%	50.3%	48.4%
W5YI	28.2	31.5	31.7
CAVEC	4.0	2.9	4.2
WCARS	2.1	3.2	3.1
SunnyV	1.8	1.9	2.7
GtLakes	3.0	1.4	2.5
Others (12)	8.1	8.8	7.4
<u>Year-to-Date Tested</u>	<u>18427</u>	<u>14859</u>	<u>14857</u>
<u>February</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Pass Rate - All	67.6%	65.9%	66.8%
Applicants/Session	12.9	11.7	10.1
Elements/Applicant	1.7	1.7	1.7
Sessions Per VEC	45.2	40.2	40.6

Administrative Errors by VE's/VEC's

<u>February</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Defect. Applications	0.3%	0.2%	0.4%
Late Filed Sessions	1.2%	2.6%	1.5%
Defective Reports	0.1%	0.1%	0.7%

Note: The two largest VEC's, (ARRL/W5YI) accounted for 86.4% of all February 1994 test sessions, 79.8% of the exam elements and 80.1% of the applicants.

[Source: Personal Radio Branch/FCC; Washington, D.C.]

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- An unlicensed Roanoke, VA radio operator who identified himself as the "Roanoke Phantom" was sentenced April 24th to 100 months in prison and fined \$2,000 ...to be followed by three years of supervised probation.

Rodney E. Bocock had been convicted of transmitting false air traffic control instructions, endangering the safety of aircraft in flight and using obscene, indecent or profane language on aviation frequencies. His transmissions included mis-information to pilots, false distress calls and offensive language.

A massive joint effort was mounted by the FCC, FAA, FBI and the Allegheny County Sheriff's Dept. to locate Bocock and was one of the most difficult cases the Commission has had to solve. FCC investigators from across the country were called in to assist in surveillance, radio direction-finding and technical signal analysis work. The case involved more resources than any other case in FCC history.

"This joint effort resulted in resolution of a serious threat to aviation safety," FCC Field Operations Bureau Chief Richard M. Smith said. "The conviction and now the sentencing should send a strong message that people who commit this sort of serious violation will be caught and punished."

• Broadcasters and cable operators are furious with the Clinton administration for proposing to increase user and other regulatory-related fees by more than \$72 million per year and to impose a new tax to be known as a "spectrum royalty fee." They say that proposal could cost spectrum users almost \$5 billion. (Being non-pecuniary, amateur radio is excluded from these fees.)

Senator Ernest Hollings (D-SC) charged that "...the administration is trying to make the information superhighway into a toll road when it should be a freeway."

According to the FY-1995 budget proposal released April 22, the White House plans to use the money freed by a self-funded FCC to cover the costs of jailing illegal aliens who commit felonies in the U.S.

The FCC already raises enough revenue through user fees and application processing to pay for more than 80% of its budget. The FCC's budget for 1995 is \$167.4 million.

- According to Broadcasting and Cable Magazine, "the FCC will roll a new fleet of souped-up spectrum patrol cars out of the garage this summer."

The Commission is including "...a trunkload of mapping and global positioning technology into 10 of its cars." FCC engineers hope the beefed-up 'mobile digital direction finder' (MDDF) vehicles will cut the time needed to find illegal radio operators.

A prototype model displayed at the FCC carried \$75,000 worth of signal tracking and location equipment installed inconspicuously in a blue Chevrolet Caprice.

- Look for more activity from Guyana, South America. Amateurs there have formed the Guyana Amateur Radio Association (GARA) and have applied to reinstate their membership into the IARU which had not been active for many years. The Virginia-based Foundation for Amateur International Radio Service (FAIRS) is providing training, equipment and other technical assistance to GARA.

- Wayne Green Inc has circulated a letter to creditors advising that he "...discovered that my comptroller had apparently modelled the WGI financial system after to one Congress is using, complete with deficits and some of the more pesky items off the books. Things were completely un-comptrolled."

Green, W2NSD/1 now has an "ex-comptroller", reduced staff and "...gotten rid of the money-losing CD manufacturing division that caused the trouble..." The company is now back into a profit-making situation.

Green is trying to liquidate an "unbelievable amount of inventory into cash.... Given a little time, I believe we can move it out at 50¢ on the dollar and thus have enough to pay everyone off. Fortunately, good music doesn't go out of date like magazines."

"If we get forced into Chapter 11, everyone but the IRS and the lawyers will get screwed. I don't want that. Nor do you, so let's work together while I'm solving the problems caused by an un-comptroller." The letter was dated April 18, 1994.

- The FCC has begun a proceeding to prepare for the 1995 and future World Radiocommunication Confer-

ences (WRCs). The Commission is seeking information to assist it in developing U.S. proposals relating to issues on the agenda of WRC-95, and in refining recommended and preliminary agendas for WRC-97 and WRC-99.

WRC-95, scheduled to convene in November 1995 is expected to (1) review the Radio Regulations based upon a report of the Voluntary Group of Experts; and (2) facilitating use of frequency bands allocated to the mobile-satellite service. WRC-95 also will recommend an agenda for WRC-97 and will develop a preliminary agenda for WRC-99.

R. B. (Bob) Vernal, ZL2CA, a frequency planning engineer, at New Zealand Telecom told us at the Dayton Hamvention that he believed a resolution impacting ham radio could be adopted at WRC-95. It would permit administrations to decide whether or not they wished to retain the Morse code requirement as a prerequisite for HF Amateur Radio operation. He said his country was in favor of such a position.

- The FCC is seeking information on potential applications for 50 MHz of spectrum that is being transferred immediately from Federal Government to private sector use. Fifteen megahertz (2402-2417 MHz) of the fifty will come from spectrum currently shared with the Amateur Radio community. AMSAT (Radioamateur Satellite Corporation) is very concerned about the impact on amateur satellite operations.

The Commission's goal is to ensure that spectrum reallocated for private sector use will provide for the introduction of new services, and the enhancement of existing services. The FCC wants to know which services should get the spectrum and the rules necessary to ensure that it is used to its maximum potential in meeting the Commission's goal.

Congress authorized a total of two hundred MHz below 5 GHz to be transferred from the Government spectrum arsenal to the private sector. The FCC is now requesting information on identifying the remaining 150 MHz to be reallocated. That places the 3300 to 3500 MHz (5-cm) ham band in jeopardy, since the band is primarily allocated to Government (Military) Radiolocation.

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COMMERCIALIZATION OF THE INTERNET

Just what part commercial advertising will play on the Internet is anybody's guess right now but the general consensus is that at some point it will definitely happen. Especially since the government has served notice that they are not going to subsidize the network anymore.

Marketers and advertising agencies believe that there will be a need for additional revenues to support the Internet. And they feel advertising is a logical answer. You can target various special interest groups by simply offering related products and services to specific Newsgroups. Look for electronic magazines, forums and video "channels" to turn up on the Internet - complete with advertising.

The Internet, created by the Department of Defense exactly 25 years ago has long served the non-commercial academic and research community. They are now greatly outnumbered. User estimates range from 10 million to 30 million. Probably 10 percent of the U.S. population now has some sort of Internet electronic address.

Since there is no Internet governing body and no written regulations, the code of conduct and enforcement of what the majority believe to be proper network standards (commonly referred to as "Netiquette") falls to the users themselves.

Generally the unwritten rule is that any sales promotion must be unobtrusive, informational and targeted to users. And so far, network users have been quite effective in keeping things pretty much on track.

Flames and boycotts...

Their primary enforcement tool is "flame mail" ...angry electronic mail attacking violators. A message posted on the Internet which readers determine to be unsolicited junk advertising can be irately answered by thousands of "flamers." The fact remains, however, the commercial notices are getting to be more and more common. Business use of the Internet is not only inevitable - but certain. Commercial users began joining in 1991 and today represent the fastest growing segment on the network.

Internet users are usually tolerant of information-driven commercial messages that users can either access or ignore. But intrusive E-mail notices that appear on thousands of screens are considered offensive and quickly "flamed." Many believe that the approach taken by Prodigy will work on the Internet, that is offering people optional additional information at the bottom of a message which they must specifically request. And there are Internet bulletin boards such as the "misc.forsale" which welcome classified ads.

CommerceNet, a consortium of technology-focused Silicon Valley companies, is a deadly-serious working-group on the Internet. They are looking into ways to further Internet business use. The consortium is operating under a \$6 million grant from the Clinton administration's TRP (Technology Reinvestment Project), a funds matching program "...to revitalize the economy and keep American competitive."

The working group is trying to solve the potential problems of network commercialization, most notably the security and transaction verification issues. They have already funded the development of a more secure version of "Mosaic", a menu/navigating tool that enables users to get around the Internet.

And a new security feature will allow users to affix digital signatures that cannot be disclaimed and time stamp legally binding contracts. The feature will be used to transfer such information as credit card numbers.

The group is also working with the banking industry to define what is required to authorize credit over the Internet. And smart software is being developed that searches for the best deal or other customer-specified information.

Mosaic menus have already been installed on CommerceNet that allow anyone to access various company and product information. A CommerceNet server called the Internet Shopping Network, an on-line electronic superstore, is already operating.

The goal is to - within 5 years - to have 3,000 companies using CommerceNet for routine business transactions and 300 organizations providing information services. The working group can be reached via e-mail at info@commerce.net - or telephone: 415/617-8690.

The National Science Foundation has announced the selection of several companies that will soon manage the privatized Internet backbone. Included are various regional and long-distance telephone companies - including MCI and Sprint.

A new consumer online service, the Interactive Connection, has quietly been started on the Internet. The service offers travel, publications, sports, entertainment and shopping.

Speaking of PC communications, American On-Line's sales and revenues are booming! AOL climbed 178% (to \$29.2 million) in the three month period ending March 1994. And their customer base has tripled in the past year ...from 245,000 to 712,000. Some of the growth has come from disgruntled Prodigy users who disapprove of their censorship policies. But growth and success has its price. Many AOL users are complaining that they are having trouble accessing the service.

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ASTRONAUTS WORK HAM RADIO FROM SHUTTLE

After a one day delay necessitated by the need for additional engine inspections, the STS-59 mission aboard the Space Shuttle Endeavour lifted off from the Kennedy Space Center on Friday, April 8th. It marked the third Space Shuttle mission this year and the sixth for Endeavour. The main payload was the Space Radar Laboratory which was used throughout the flight to gather data on Earth environmental changes.

The Shuttle Amateur Radio Experiment (SAREX) was also flown since two of the six astronauts on board STS-59 were licensed radio amateurs: Dr. Jay Apt, N5QWL, Mission Specialist and Dr. Linda Godwin, N5RAX, Payload Commander.

SAREX configuration C, consisting of the hand-held transceiver, a window antenna, packet module, and a headset is capable of operating in either the attended voice mode ...or attended or automatic data mode. Amateur communications was activated approximately 3 hours after liftoff with an excellent check pass through San Diego. Kerry Banke, N6IZW and Ron Earl, W6TXK, in San Diego used a phone link to connect Jay Apt, N5QWL on the Space Shuttle Endeavour with Lou McFadin, W5DID at the Johnson Space Center. During the contact, Jay Apt said he really enjoyed the magnificent ride into space.

Several schools completed scheduled amateur radio contacts with the shuttle astronauts including; Ealy Elementary School (West Bloomfield, MI), Kanawha Elementary School (Davisville, WV), Alcatel Amateur Radio Association and Circle 10 Council-BS (Richardson, TX), Anthony Elementary (Anthony, KS), St. Bernard High School (Playa Del Rey, CA), Country Club School (San Ramon, CA), Deep Creek Middle School (Baltimore, MD), Paltamo Senior High School (Paltamo Finland) and the Ogilvie School (Northampton, Western Australia.) Each astronaut used their own call sign on FM voice. W5RRR-1 on packet.

If you heard or worked the shuttle, you can get a QSL card by sending your report to ARRL STS-59 QSL, 225 Main Street, Newington, CT 06111, USA. Include the following information in your QSL or report: STS-59, date, time in UTC, frequency and mode (FM voice or packet). Include an SASE using a large, business-sized envelope if you wish to receive a card. The Orange Park Amateur Radio Club in Florida has generously volunteered to manage the cards for this mission.

Jay Apt sent down the following message on April 17th: "W5RRR-1*>QST: We used the SAREX rig today to talk with 2 of our astronauts now stationed in Star City, near Moscow, and 2 cosmonauts. One of the astronauts was my friend and former STS-37 crew-

mate, Ken Cameron, R3/KB5AWP. Ken also got me into ham radio. It was terrific to hear his voice after several months corresponding by e-mail only! Linda, N5RAX and I and crewmate Kevin Chilton spoke to Ken and the cosmonauts including U6MIR, Anatoli Artsibarski, on two successive orbits. What a great way to use ham radio! They were standing near the Yuri Gagarin statue, using an HT with a 5/8 whip, standing on a car to increase their elevation! 73, Jay N5QWL 01:10 UTC 17 April 1994

The STS-59 mission was extended one day past its planning landing which provided an additional day of SAREX operations. Landing took place on April 19th in California rather than Florida due to bad weather at the cape.

ILLINOIS INTRODUCES SCANNER LEGISLATION

A bill was introduced on April 12, 1994 into the Illinois state legislature which prohibits the possession of a receiver or transceiver capable of monitoring or broadcasting police, fire, or other municipal radio frequencies unless the device operates exclusively on alternating current power. Penalty is a Class B misdemeanor.

Specifically exempted are peace officers, fire officials, municipal employees, agents acting in an official capacity, and the press. But not amateur radio operators! House Bill 4180 amends the Criminal Code of 1961 by adding a new Section 31-9.

This legislation appears to be in direct conflict with the September 1993 FCC preemption (Docket No. 91-36) that forbids states and municipalities from enacting laws or ordinances "...that effectively preclude the possession in vehicles and elsewhere of amateur service transceivers by amateur operators merely on the basis that the transceivers are capable of reception on public safety, special emergency, or other radio service frequencies, the reception of which is not prohibited by federal law."

- The American Red Cross and the American Radio Relay League have signed a cooperative agreement renewing their long standing arrangement to provide communications in times of disaster. The original statement of understanding was signed in 1940, and was last revised in 1974.

The agreement calls for the development of guidelines for all aspects of communications traffic by amateur radio, and renews the agreement to work together for the health and welfare of the public when disaster strikes. The revised document also serves to strengthen the commitment between local Red Cross chapters and volunteers in ARRL's field organization.